

Notice of Allowability

Application No.

10/029,194

Examiner

Hussein A. El-chanti

Applicant(s)

SHAH-HEYDARI, SHAHRAM

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/26/2006.
2. ☒ The allowed claim(s) is/are 1-4,7,9-11,16,18-22,24 and 28-31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

EXAMINER'S AMENDMENT

1. This action is responsive to after final amendment received on Sep. 26, 2006.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Peter Elyjiw on Nov. 9, 2006.

3. The application has been amended as follows:

- **7. (Currently amended)** A computing device comprising:
a processor;
memory, in communication with said processor, storing processor readable instructions adapting said device to extend a spanning hierarchical protection tree in a mesh network by:
 - at a current node, receiving an invitation to become a child of a first adjacent node; and
 - if a minimum link bandwidth along a protection path from said current node to a root node of the spanning hierarchical protection tree which visits the first adjacent node is greater than a minimum link bandwidth of any existing protection path from said current node to said root node^{[[.]]}:
 - designating said first adjacent node as a primary parent of said current node in said tree; and
 - from said current node, sending an invitation to become a child of said current node in said tree to each adjacent node of said current node that is not said first adjacent node.

- **8. (Cancelled)**
- **9. (Currently amended)** The computing device of claim [[8]] 7, wherein said memory further comprises instructions adapting said device to:
 - if said minimum link bandwidth along said protection path from said current node to said root node which visits the first adjacent node is not greater than said minimum link bandwidth of any existing protection path from said current node to said root node, designate said first adjacent node as a backup parent of said current node in said tree.
- **16. (Currently amended)** A computer readable medium storing computer software that, when loaded into a computing device, adapts said device to extend a spanning hierarchical protection tree in a mesh network by:
 - at a current node, receiving an invitation to become a child of a first adjacent node; and
 - if a minimum link bandwidth along a protection path from said current node to a root node of the spanning hierarchical protection tree which visits the first adjacent node is greater than a minimum link bandwidth of any existing protection path from said current node to said root node[[.]]:
 - designating said first adjacent node as a primary parent of said current node in said tree; and
 - from said current node, sending an invitation to become a child of said current node in said tree to each adjacent node of said current node that is not said first adjacent node.
- **17. (Cancelled)**
- **18. (Currently amended)** The computer readable medium of claim [[17]] 16, wherein said software is further capable of adapting said device by:
 - if said minimum link bandwidth along said protection path from said current node to said root node which visits the first adjacent node is not greater than said

minimum link bandwidth of any existing protection path from said current node to said root node, designating said first adjacent node as a backup parent of said current node in said tree.

- **21. (Currently amended)** A computer readable medium storing computer software that, when loaded into a computing device, adapts said device to:

extend a spanning hierarchical protection tree in a mesh network by:

at a current node, receiving an invitation to become a child of a first adjacent node; and

if a minimum link bandwidth along a protection path from said current node to a root node of the spanning hierarchical protection tree which visits the first adjacent node is greater than a minimum link bandwidth of any existing protection path from said current node to said root node[[.]] :

designating said first adjacent node as a primary parent of said current node in said tree; and

from said current node, sending an invitation to become a child of said current node in said tree to each adjacent node of said current node that is not said first adjacent node; and

reconnect a node disconnected from [[a]] said spanning hierarchical protection tree in [[a]] said mesh network to the spanning hierarchical protection tree by:

designating a backup parent of said disconnected node in said tree to be a primary parent of said disconnected node in said tree; and

from said disconnected node, sending an invitation to become a child of said disconnected node in said tree to each adjacent node of said disconnected node that is not said primary parent, said invitation providing an indication of a minimum link bandwidth of a protection path to a root node of the spanning hierarchical protection tree which visits said disconnected node.

- **22. (Currently Amended)** The computer readable medium of claim ~~[[21]]~~ 24, wherein said software is further capable of adapting said device to connect said auxiliary node to said tree by:

for each said adjacent node:

if said minimum link bandwidth along a protection path from said auxiliary node to said root node of the spanning hierarchical protection tree which visits said adjacent node is not greater than said minimum link bandwidth of any existing protection path from said auxiliary node to said root node, designating said adjacent node as a backup parent of said auxiliary node in said tree.

- **23. (Cancelled).**

REASONS FOR ALLOWANCE

4. Claims 1-4, 7, 9-11, 16, 18-22, 24 and 28-31 are allowable over the prior art of record.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein A. El-chanti whose telephone number is (571)272-3999. The examiner can normally be reached on Mon-Fri 8:30-5:00.

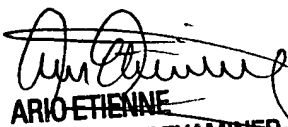
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hussein Elchanti

Nov. 11, 2006


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